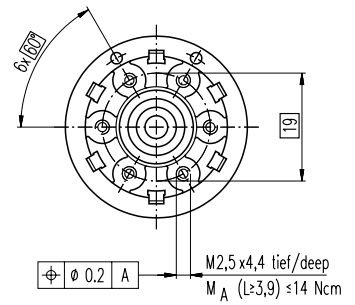
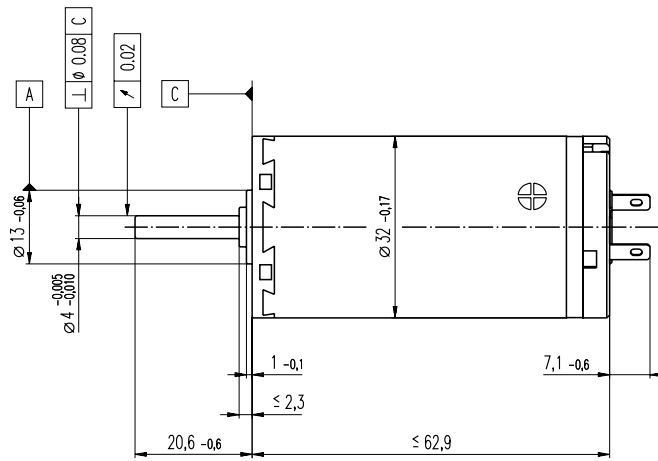
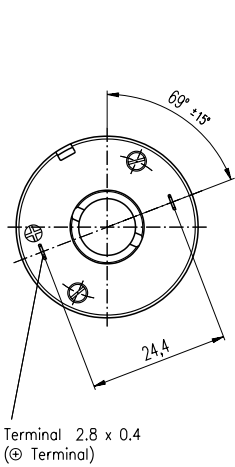


# A-max 32 Ø32 mm, Graphite Brushes, 15 Watt



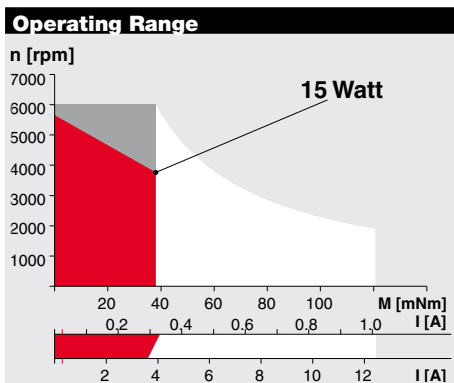
- Stock program
- Standard program
- Special program (on request!)

## Order Number

236643	236644	236645	236646	236647	236648	236649	236650
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Motor Data		236643	236644	236645	236646	236647	236648	236649	236650
1 Assigned power rating	W	15	15	15	15	15	15	15	15
2 Nominal voltage	Volt	6.0	9.0	12.0	18.0	24.0	30.0	36.0	48.0
3 No load speed	rpm	5710	4830	4590	5200	5860	5800	5760	3800
4 Stall torque	mNm	100.0	88.2	96.8	119	129	129	126	82.1
5 Speed/torque gradient	rpm/mNm	59.5	57.0	49.1	45.0	46.6	45.9	46.6	47.9
6 No load current	mA	295	163	115	87	74	59	49	24
7 Starting current	mA	10500	5160	4010	3690	3370	2680	2170	704
8 Terminal resistance	Ohm	0.573	1.75	2.99	4.88	7.13	11.2	16.6	68.2
9 Max. permissible speed	rpm	6000	6000	6000	6000	6000	6000	6000	6000
10 Max. continuous current	mA	3610	2070	1580	1240	1020	817	671	331
11 Max. continuous torque	mNm	34.6	35.5	38.2	39.8	39.1	39.4	39.1	38.6
12 Max. power output at nominal voltage	mW	13900	10600	11200	15700	19200	19200	18600	7890
13 Max. efficiency	%	67	67	68	71	72	73	72	67
14 Torque constant	mNm/A	9.59	17.1	24.1	32.2	38.2	48.3	58.3	117
15 Speed constant	rpm/V	996	559	396	297	250	198	164	81.9
16 Mechanical time constant	ms	26	22	21	21	20	20	20	20
17 Rotor inertia	gcm <sup>2</sup>	42.4	37.4	41.4	43.8	41.9	42.1	41.3	40.0
18 Terminal inductance	mH	0.07	0.21	0.42	0.74	1.05	1.67	2.44	9.75
19 Thermal resistance housing-ambient	K/W	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
20 Thermal resistance rotor-housing	K/W	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
21 Thermal time constant winding	s	17	15	17	18	17	17	17	16

- ### Specifications
- Axial play 0.12 - 0.22 mm
  - Max. **ball bearing** loads
    - axial (dynamic) 7.6 N
    - radial (5 mm from flange) 32.0 N
    - Press-fit force (static) 110 N
  - Max. **sleeve bearing** loads
    - axial (dynamic) 5 N
    - radial (5 mm from flange) 10.5 N
    - Press-fit force (static) 110 N
  - Radial play **ball bearings** 0.025 mm
  - Radial play **sleeve bearings** 0.012 mm
  - Ambient temperature range -20/+85°C
  - Max. rotor temperature +125°C
  - Number of commutator segments 13
  - Weight of motor 211 g
  - Values listed in the table are nominal. For applicable tolerances (see page 43) and additional details please request out of the maxon selection program on the settled CD-Rom.
  - Connector from S 2332... (see page 89)



- ### Comments
- Details on page 49
- Recommended operating range**
  - Continuous operation**  
In observation of above listed thermal resistances (lines 19 and 20) the maximum permissible rotor temperature will be reached during continuous operation at 25°C ambient. = Thermal limit.
  - Short term operation**  
The motor may be briefly overloaded (recurring).
- 110870 Motor with high resistance winding  
110863 Motor with low resistance winding

### maxon Modular System

- Planetary Gearhead**  
Ø32 mm  
0.75-4.5 Nm  
Details page 188
- Planetary Gearhead**  
Ø32 mm  
1.0-6.0 Nm  
Details page 191
- Spur Gearhead**  
Ø38 mm  
0.1-0.6 Nm  
Details page 194

- Options: Sleeve bearings in place of ball bearings and pigtails in place of terminals.